

IN THE CLAIMS:

Substitute the following claims for the pending claims having the same numbers.

designations: canceled, withdrawn, currently amended, withdrawn, original, not entered – formerly dependent claim #, previously presented, new

1-4. (canceled)

5. (currently amended) ~~The system according to claim 3,~~ A subterranean well system, comprising:

a chamber expanded within the well, the chamber having a wall made up of multiple layers, the layers including an outer shell and an inner shell, and

wherein the inner shell is displaced at least partially into the outer shell after the outer shell is expanded in the well.

6. (currently amended) ~~The system according to claim 3,~~ A subterranean well system, comprising:

a chamber expanded within the well, the chamber having a wall made up of multiple layers, the layers including an outer shell and an inner shell, and

wherein the inner shell is expanded within the outer shell after the outer shell is expanded in the well.

7. (currently amended) ~~The system according to claim 3,~~ A subterranean well system, comprising:

a chamber expanded within the well, the chamber having a wall made up of multiple layers, the layers including an outer shell and an inner shell, and

wherein the layers further include a hardened load bearing material positioned between the inner and outer shells.

8. (original) The system according to claim 7, wherein the load bearing material is positioned between the inner and outer shells after the inner and outer shells are positioned in the well.

9. (original) The system according to claim 7, wherein the load bearing material is positioned within the outer shell after the outer shell is expanded in the well.

10. (original) The system according to claim 7, wherein the load bearing material is hardened in the well after the load bearing material is positioned between the inner and outer shells.

11-15. (canceled)

16. (currently amended) ~~The method according to claim 15,~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well, the layers including an outer shell and an inner shell; and

expanding the layers in the well to form the expanded chamber, including expanding the outer shell, and expanding the inner shell within the outer shell, and

wherein the expanding step further comprises expanding the inner shell after expanding the outer shell.

17. (currently amended) ~~The method according to claim 15,~~
A method of forming an expanded chamber in a subterranean well,
the method comprising the steps of:

positioning multiple chamber wall layers in the well, the layers including an outer shell and an inner shell; and

expanding the layers in the well to form the expanded chamber, including expanding the outer shell, and expanding the inner shell within the outer shell, and

wherein the positioning step further comprises displacing the inner shell at least partially into the outer shell after the step of expanding the outer shell.

18. (original) The method according to claim 17, further comprising the step of connecting the inner shell to a tubular string, and wherein the displacing step further comprises displacing the tubular string.

19. (currently amended) ~~The method according to claim 15,~~
~~further comprising the step of~~ A method of forming an expanded

chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well, the layers including an outer shell and an inner shell;

expanding the layers in the well to form the expanded chamber, including expanding the outer shell, and expanding the inner shell within the outer shell; and

hardening a load bearing material between the inner and outer shells in the well.

20. (original) The method according to claim 19, wherein the hardening step is performed after the step of expanding the outer shell.

21. (original) The method according to claim 20, wherein the hardening step is performed after the step of expanding the inner shell.

22. (original) The method according to claim 21, further comprising the step of cementing the expanded chamber in a wellbore of the well after the hardening step.

23. (original) The method according to claim 19, further comprising the step of positioning the load bearing material between the inner and outer shells.

24. (original) The method according to claim 23, wherein the load bearing material positioning step is performed prior to positioning the inner and outer shells in the well.

25. (original) The method according to claim 23, wherein the load bearing material positioning step is performed after positioning the inner and outer shells in the well.

26. (original) The method according to claim 23, wherein the load bearing material positioning step is performed after expanding the outer shell in the well.

27. (original) The method according to claim 26, wherein the load bearing material positioning step is performed prior to expanding the inner shell in the well.

28. (original) The method according to claim 26, wherein the load bearing material positioning step is performed after expanding the inner shell in the well.

29. (original) The method according to claim 23, wherein the step of positioning the load bearing material between the inner and outer shells is performed by positioning the load bearing material within the outer shell after expanding the outer shell in the well, and then expanding the inner shell.

30. (original) The method according to claim 29, wherein the step of positioning the load bearing material within the outer shell is performed prior to displacing the inner shell at least partially into the outer shell.

31. (original) The method according to claim 23, wherein the step of positioning the load bearing material between the inner and outer shells is performed by positioning the load bearing material within the outer shell prior to expanding the outer shell in the well.

32. (original) The method according to claim 31, wherein the step of expanding the outer shell further comprises positioning additional load bearing material within the outer shell.

33. (original) The method according to claim 23, wherein the step of positioning the load bearing material between the inner and outer shells is performed by positioning the load bearing material between the inner and outer shells after expanding the inner and outer shells in the well.

34. (original) The method according to claim 33, further comprising the step of displacing the inner shell at least partially into the outer shell prior to expanding the inner shell.

35. (canceled)

36. (currently amended) ~~The method according to claim 15, further comprising the step of~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well, the layers including an outer shell and an inner shell;

expanding the layers in the well to form the expanded chamber, including expanding the outer shell, and expanding the inner shell within the outer shell; and

sealing between the expanded inner and outer shells prior to positioning a load bearing material between the inner and outer shells.

37. (original) The method according to claim 36, wherein the sealing step further comprises forming at least first and second spaced apart seals between the expanded inner and outer shells, and wherein the load bearing material positioning step further comprises positioning the load bearing material between the first and second seals.

38-43. (canceled)

44. (currently amended) ~~The method according to claim 42,~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;

expanding the layers in the well to form the expanded chamber;

positioning a load bearing material between at least two of the layers; and

then hardening the load bearing material in the well, and

wherein the load bearing material positioning step is performed after positioning the layers in the well.

45. (currently amended) ~~The method according to claim 42,~~
A method of forming an expanded chamber in a subterranean well,
the method comprising the steps of:

positioning multiple chamber wall layers in the well;

expanding the layers in the well to form the expanded chamber;

positioning a load bearing material between at least two of the layers; and

then hardening the load bearing material in the well, and

wherein the load bearing material positioning step is performed after at least one of the layers is expanded in the well.

46. (currently amended) ~~The method according to claim 42,~~
A method of forming an expanded chamber in a subterranean well,
the method comprising the steps of:

positioning multiple chamber wall layers in the well;

expanding the layers in the well to form the expanded chamber;

positioning a load bearing material between at least two of the layers; and

then hardening the load bearing material in the well, and

wherein the load bearing material positioning step is performed while at least one of the layers is expanded in the well.

47. (currently amended) ~~The method according to claim 11, further comprising the steps of:~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;

expanding the layers in the well to form the expanded chamber;

forming a wellbore exit in an inner one of the layers;

cutting an opening through the chamber wall at the wellbore exit after the expanding step; and

flowing cement outward through the opening and into an annulus formed between the expanded chamber and a first wellbore of the well.

48. (original) The method according to claim 47, further comprising the steps of:

drilling a second wellbore outward from the opening; and

securing a tubular string in the wellbore exit, the tubular string extending into the second wellbore.

49. (original) The method according to claim 48, wherein the flowing step further comprises flowing the cement through the tubular string and into the second wellbore.

50-52. (canceled)

53. (currently amended) ~~The method according to claim 50, further comprising the steps of:~~ A method of forming an expanded chambers in a subterranean well, the method comprising the steps of:

positioning multiple sets of chamber wall layers in the well;

expanding each of the sets of chamber wall layers in the well to thereby form the multiple expanded chambers in the well;

connecting an annular barrier between each adjacent pair of the multiple sets of the chamber wall layers; and

setting each annular barrier to thereby seal between the multiple sets of the chamber wall layers and a wellbore of the well.

54-59. (canceled)

60. (currently amended) The method according to claim ~~11~~ 19, further comprising the step of providing the layers including a load bearing material positioned between at least two of the layers.

61. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable polymer material.

62. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable epoxy material.

63. (original) The method according to claim 62, wherein the epoxy material includes at least two parts, and further comprising the step of mixing the two parts in the well to harden the epoxy material.

64. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable latex cement.

65. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable polyurethane material.

66. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable polyethylene material.

67. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable metal matrix composition.

68. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a hardenable bonding material.

69. (original) The method according to claim 60, wherein in the providing step, the load bearing material includes a foamed material.

70. (currently amended) ~~The method according to claim 69, further comprising the steps of~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;

providing the layers including a load bearing material positioned between at least two of the layers, the load bearing material including a foamed material;

expanding the layers in the well to form the expanded chamber; and

foaming and hardening the foamed material after the expanding step.

71. (currently amended) ~~The method according to claim 69, further comprising the steps of~~ A method of forming an expanded

chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;
providing the layers including a load bearing material
positioned between at least two of the layers, the load bearing
material including a foamed material;
expanding the layers in the well to form the expanded
chamber; and

foaming and hardening the foamed material prior to the positioning step.

72. (original) The method according to claim 60, wherein the at least two layers are each made of a metal material.

73. (original) The method according to claim 60, wherein the at least two layers are each made of a composite material.

74. (canceled)

75. (currently amended) ~~The method according to claim 74, wherein~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;
forming at least one of the layers of a composite material,
the forming step ~~further comprises~~ including the step of
impregnating a fabric material with a resin to form the
composite material ; and

expanding the layers in the well to form the expanded chamber.

76. (original) The method according to claim 75, wherein in the forming step, the fabric is a carbon fiber cloth.

77. (original) The method according to claim 75, wherein in the forming step, the fabric is a woven material.

78. (original) The method according to claim 75, wherein in the forming step, the fabric is a braided material.

79. (original) The method according to claim 75, further comprising the step of crosslink catalyzing the resin in the well.

80. (original) The method according to claim 79, wherein the crosslink catalyzing step is performed in response to heating the resin to a predetermined temperature in the well.

81-84. (canceled)

85. (currently amended) ~~The method according to claim 82, further comprising the step of~~ A method of forming an expanded chamber in a subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;
forming at least two of the layers of a composite material;
expanding the layers in the well to form the expanded
chamber; and
positioning a foamed material between the composite layers.

86-93. (canceled)

94. (currently amended) ~~The method according to claim 93,~~
~~wherein~~ A method of forming an expanded chamber in a
subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;
forming at least one of the layers of a rubber material,
the forming step ~~further comprises~~ including the step of
impregnating a fabric with the rubber material ; and
expanding the layers in the well to form the expanded
chamber.

95. (currently amended) ~~The method according to claim 93,~~
~~wherein~~ A method of forming an expanded chamber in a
subterranean well, the method comprising the steps of:

positioning multiple chamber wall layers in the well;
forming at least one of the layers of a rubber material,
the forming step ~~further comprises~~ including the step of coating
a fabric with the rubber material ; and

expanding the layers in the well to form the expanded
chamber.

96-137. (canceled)